



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,786	04/04/2001	Gerald W. Mills	723.035US1	1321

21186 7590 10/01/2003

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. BOX 2938  
MINNEAPOLIS, MN 55402

EXAMINER

JUNG, WILLIAM C

ART UNIT	PAPER NUMBER
----------	--------------

3737

DATE MAILED: 10/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/825,786

Applicant(s)

MILLS ET AL.

Examiner

William Jung

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on April 4, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 1-9, 27, 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-9, 27 and 28 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5.
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 6.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 3737

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-9, 27, and 28 are, drawn to Group I, classified in class 74, subclass 842.
  - II. Claims 10-26 are, drawn to Group II, classified in class 600, subclass 407.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as aligning medical imaging device. See MPEP § 806.05(d).

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with David Peterson on September 23, 2003 a provisional election was made without traverse to prosecute the invention of Group II, claims 10-26. Affirmation of this election must be made by applicant in replying to this Office action.

Claims 1-9, 27, and 28 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

Art Unit: 3737

application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 10-15, 19, and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by ***Rapoport*** (US 5,598,845).

Claims 10, 11, 20, and 22: Rapoport discloses of an alignment device where it guides insertion of surgical tools through the guiding tube 28 as shown in figures 5-7 (col. 7, lines 54-67). The insertion guide is mounted to a base or support frame 23 and the movement of the insertion guide is controlled via remote control module or control computer 90 (col. 7, lines 37-50). The movement of the insertion guide is achieved via detachable swivel mechanism or actuator with adjustable joint 25 (col. 7, lines 20-36).

Claims 12 and 21: Rapoport further discloses of above system specifically in use for positioning of the insertion device about the skull in conjunction with MRI scan (col. 2, lines 36-60).

Claims 13-15, and 19: Rapoport discloses of inserting location marker or reference device M1, M2, M3, and so forth where these markers are located in three dimensional data as shown in figure 2 (col. 6, lines 11-57, figure 2; col. 7, line 54 – col. 8, line 61).

Art Unit: 3737

Therefore, Rapoport clearly anticipates all claimed invention in claims 1-15, 18, and 20-22.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Rapoport*** as applied to claims 1- and 13 above, and further in view of ***Truwit*** (US 5,993,463).

***Rapoport*** substantially disclose of all claimed invention in claims 16 and 17 where the insertion guide has small open where the light source marks the position of entry for the insertion device. Truwit further teaches that the many surgical tools for insertion to a patient includes infrared (IR) or light emitting diode (LED) attached to the instrument to identify the position. Truwit also discloses that the such a device described above can be mounted to a stereotaxy device used to introduce surgical tool to the patient's skull (col. 2, lines 15-37). Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Rapoport to the teachings of Truwit to achieve the claimed invention.

10. Claim 18 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Rapoport*** as applied to claims 10 and 13 above, and further in view of ***Lee et al*** (US 3,893,449).

***Rapoport*** substantially disclose of all claimed invention in claims 18 and 23-26. Lee et al discloses of an imaging device placed on a patient with remote control of the device to align the

Art Unit: 3737

imaging device to an appropriate location. Lee et al also teaches that the location of the medical device such as ultrasound is referenced to identify the position using potentiometer (col. 1, line 59 – col. 2, line 11). Lee et al also disclose in figures 2 and 11 where the control mechanism includes pin joint actuator with rotary motor with rotating cable drive (col. 5, lines 36-64).

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Rapoport's aligning imaging device to teachings of Lee et al's position referencing system to achieve the claimed invention.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


***Bova et al*** (US 6,546,2779), ***Franck et al*** (US 6,282,437), and ***Atkov et al*** (US 4,483,344).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Jung whose telephone number is 703-605-4364. The examiner can normally be reached on Mon-Fri 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Ruhl can be reached on 703-308-2262. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

*WJ*  
September 23, 2003

  
George Manuel  
Primary Examiner